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ABSTRACT

Correlates of the teacher scales from the Effective School Battery (ESB) were examined in the Charleston County School District (CCSD) in South Carolina. Focus was on determining the relations between the ESB teacher scales and student academic achievement, progress through the grades, attendance, and dropout. This study was conducted as part of a collaborative effort of the CCSD and university researchers to increase understanding of grade retention and dropout in the district and to devise a plan to ameliorate these problems. The ESB assesses several dimensions of school climate by supplementing traditional academic achievement testing program data with indicators of other important organizational outcomes. Links were examined between the teacher scales and several measures of school academic outcomes and student attendance in 42 elementary schools and between 11 and 18 middle schools and high schools. Student surveys of the ESB were not examined. The ESB teacher surveys measured nine dimensions of school psychosocial climate and seven characteristics of the teacher population. Results show that the ESB scales were related to academic performance, especially in the elementary grades; to attendance; and to dropout in the middle schools and high schools. These correlations often persisted when statistical controls for student ethnic composition and economic status were applied. Scales with relatively consistent and sizable correlations with salutary educational outcomes were safety, morale, planning and action, resources, parent-community involvement, personal security, and classroom orderliness. Twenty-four tables provide study data (focusing on grades 1, 2, 3, 6, 8, and 10), and two figures list the ESB teacher scales. (SLD)

School Climate, Academic Performance, Attendance, and Dropout

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Abstract

The Effective School Battery (ESB) was developed to assess a variety of dimensions of school climate. The aim was to broaden the scope of measurable outcomes of school arrangements and practices by supplementing traditional academic achievement testing program information with indicators of other important organizational outcomes. The ESB is intended to be used to diagnose schools, to provide information useful in organization development or change, and to evaluate the effects of school improvement programs.

In this paper we examine the links between the teacher scales of the ESB and a variety of measures of school academic outcomes and student attendance in samples of elementary, middle, and high schools. The scales display positive correlations with school-level educational outcomes that are moderate in size, and dropout rate also shows moderate negative correlations with the ESB scales. These correlations often persist when statistical controls for student ethnic composition and economic status are applied.

School Climate, Academic Performance, Attendance, and Dropout

In this paper we report on research examining the correlates of the teacher scales from the Effective School Battery (ESB; G. D. Gottfredson, 1984). The ESB was developed by a combination of rational and empirical methods to create (a) a set of scales measuring differences among schools in aspects of their climate related to orderliness, capacity for school improvement, and the primary prevention of adolescent problem behavior, and (b) a structure for summarizing some practices, attitudes, and personal characteristics of schools' teachers that may be related to these same school outcomes.

The ESB grew out of a program of research on delinquency, school environments, and school improvement that has focused on the causes and correlates of school orderliness and on the causes and correlates of adolescent problem behavior--delinquency, drug use, dropout, truancy. Initial research involving survey data from 642 schools (G. D. Gottfredson & D. C. Gottfredson, 1985) led to practical research evaluating the efficacy of school-based delinquency and dropout prevention programs implemented by 17 distinct school- and community-based organizations (G. D. Gottfredson, 1982; G. D. Gottfredson, D. C. Gottfredson, & Cook, 1983). The scales of the ESB were developed to assess characteristics of program implementation and program outcomes

sought by these diverse programs. In developing these scales, G. D. Gottfredson sought to devise useful measures of school climate that could be used to supplement measures of academic outcomes with measures of the quality of school environments, adolescent socialization, and teacher attitudes and practices.[1]

The ESB teacher survey is intended to measure dimensions of (a) school psychosocial climate and (b) teacher population characteristics. Conceptually, school climate is a property of the school. Individual differences in perceptions of school climate are regarded as error or "noise." In contrast, a teacher characteristic is a property of an individual teacher, and true score variability should reflect individual differences within schools. It is an empirical matter whether or not segregation according to individual differences or school effects produce variability among schools in these population characteristics.

The nine psychosocial climate scales and the seven population characteristic scales of the ESB teacher survey are described in Figures 1 and 2, respectively. Details of the development and a summary of the ESB psychometric properties are reported in the *Manual* (G. D. Gottfredson, 1984).

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[1]The ESB is composed of both teacher and student surveys. Only the teacher surveys are examined here.

In this report we examine the relations between the teacher scales of the ESB and student academic achievement, progress through the grades, attendance, and dropout.

Context and Data

This investigation was conducted as part of a collaborative effort of the Charleston County School District (CCSD) and university researchers to increase understanding of grade retention and dropout in the District and to devise a plan to ameliorate these problems (CCSD, 1983; G. D. Gottfredson, 1988b; G. D. Gottfredson & D. C. Gottfredson, 1988). This effort is guided by a structured method for diagnosing organizational problems and developing school improvement programs (G. D Gottfredson, 1984) that emphasizes the use of information for defining problems and assessing progress towards their resolution.

Accordingly, we began by examining data about the demography, programs, and outcomes of the District, and we assumed that the design of educational improvement programs would require the kinds of information developed by an ESB assessment of schools about school climate and capacity for school improvement on a school-by-school basis. ESB teacher surveys were conducted in all the District's

schools as part of a district-wide effort to diagnose and ameliorate problems of grade retention and dropout.

CCSD routinely participates in the State achievement assessment programs. This includes assessments of students at each grade level using a criterion-referenced set of tests known as the Basic Skills Assessment Program (BSAP). BSAP assessments are made for students enrolled in grades 1, 2, 3, 6, 8, and 10. In other grades (4, 5, 7, and 9) a norm referenced test--the Comprehensive Test of Basic Skills (CTBS) is used. Earlier research has shown that (a) the population of students has been shifting in recent years such that the average student taking each grade-level test has been steadily increasing (G. D. Gottfredson, 1988b) and (b) there are differences among schools in the propensity to promote students with a given level of demonstrated achievement (Rose, 1988b).

This evidence implies that promotion/retention decisions influence test score distributions for the schools in the district and for grade levels within schools. A school can increase the percentage of students meeting the criterion in at least three ways: (1) doing a better job of instruction, (2) changing the age of examinees through alterations in retention/promotion practices, (3) changing the school's population in some other way--becoming selective, establishing a "magnet" program, encouraging attrition through expulsion or suspension, etc. For this reason, this report examines

not only grade-level test scores but also academic achievement measures that are sensitive to the orderly progression of students through the grades.

The following additional variables are examined in this report:

Mean Student Age
This is the mean age of students in each grade. In schools and grades in which students have been retained in grade, this mean will tend to be elevated.

Percentage Never Retained
This percentage is approximated by using students' birth dates to determine whether they are overage for grade. It is assumed that a student who is overage for grade has been retained, an approximation flawed only to the extent of in-migration of students from other districts with school initiation ages that differ from those in this district and any error in recording student birth date.

Percentage White

Percentage Free/Reduced Lunch
This is an inverse proxy measure for studentry economic status. Provision of free/reduced lunch is based on parental report of economic standing, and lower percentages observed at higher grade levels suggest that differential attrition (or stigma associated with free/reduced lunch) also influence this percentage.

Percentage Male

Mean Reading Score
This is the grade-level mean on a grade-specific criterion referenced reading test (BSAP) keyed to state reading instructional objectives.[2]

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[2]Examination of the distributions of test score data and the history of testing program results showed that one elementary school's third grade results (for a single classroom) made it an extreme outlier in a manner consistent with an interpretation that the integrity of the assessment program had been compromised in this instance. Accordingly, in preparing all tables pertaining to the third grade we

Mean Math Score
This is the grade-level mean on a grade-specific criterion referenced math test (BSAP) keyed to state reading instructional objectives.

Percentage Meeting Reading Criterion
The State Department of Education suggests a criterion score on the BSAP for satisfactory progress. This is the percentage of students in each grade meeting or exceeding this criterion score for reading.

Percentage Meeting Math Criterion
The State Department of Education suggests a criterion score on the BSAP for satisfactory progress. This is the percentage of students in each grade meeting or exceeding this criterion score for math.

Percentage Meeting Reading Criterion On Time
This is the percentage of students attempting a grade level BSAP reading exam who (a) exceed the criterion level *and* (b) are not overage for their grade. This percentage is included as an "honest" indicator of educational progress.

Percentage Meeting Math Criterion On Time
This is the percentage of students attempting a grade level BSAP math exam who (a) exceed the criterion level *and* (b) are not overage for their grade.

Mean Reading Score for On-Time Students
This is the mean BSAP reading score for those students who are not overage for grade.

Mean Math Score for On-Time Students
This is the mean BSAP math score for those students who are not overage for grade.

Aggregated Residual Gain Scores.
The State Department of Education prepares School Performance Reports used for making school incentive awards. In these reports test scores for previous years are merged with files of test scores for a current year, and these merged files are used to calculate residual gain scores for each individual student. Because some students are promoted in grade and others are

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excluded this school's third grade testing program data.

retained in any given year, not all students in any one grade take the same test the previous year, so residual gains are computed separately for the separate assessment groups but pooled to produce an aggregated gain index. For grade 1 the gain index is based on a "readiness" assessment as the pretest variable with the BSAP test performance as the posttest variable, and probably does not involve as efficient a statistical control as do the gain indices for higher grade levels.

Student Attendance

This is average daily attendance as a percentage of school average daily membership (Rose, 1988a).

Dropout Rate

Each school reports the annual incidence of dropout to the State Department of education, and this incidence is expressed as a percentage of enrollment for students in grades 7 through 8 and in grades 9 through 10 (Rose, 1988a).

Results

Correlations between the ESB Psychosocial Climate scales and student demographic data and educational outcomes are displayed for grades 1, 2, 3, 6, 8, and 10 in Tables 1 to 6.[3] Parent/Community Involvement, Safety, Morale, Resources, and Planning and Action generally have moderate to large--and often statistically significant--correlations with the educational outcome variables as well as with the demographic characteristics of the schools. Even in

[3]Interscale correlations and reliabilities for the ESB scales are shown in Appendix Tables A-1 to A-3. Appendix Table A-4 shows correlations between school demographic variables and educational outcomes.

the small (N = 11) sample of high schools for 10th graders, mean student age is significantly negatively correlated with most ESB climate scales, implying that most aspects of psychosocial climate are inversely related to orderly student progress through the grades.

Correlations of the ESB Parent/Community Involvement scale with the educational variables are usually especially high, significantly correlated with *every* measure of educational progress in grades 1, 2, 3, 6, and 8 and with correlations ranging in absolute value from .44 to .93.

Correlations between the ESB Teacher Population Characteristics and student demographic data and educational outcomes are shown in Tables 7 to 12 for grades 1 to 10. Teachers' average Pro-Integration Attitude is usually negatively correlated with percentage of students white and positively correlated with percentage of students receiving subsidized lunch, suggesting that teachers working in predominantly white schools with predominantly affluent students prefer that situation. For the elementary and middle school grades, average job satisfaction is usually positively associated with students' orderly progress through the grades as indexed by age (-), percentage retained (-), and percentage meeting educational criteria on time (+). Put another way, teachers are usually more satisfied in schools where students tend to be at the age appropriate for their grade. Personal Security and Classroom Orderliness show particularly large and

consistent positive correlations with educational outcomes, except for the 10th grade, where correlations with on-time criterion performance are moderate in size but not significant in the sample of 11 schools. Nonauthoritarian Attitudes of the faculty tend to be associated with positive educational outcomes.

Partial Correlations

Tables 1 through 12 have documented that school affluence and ethnic composition are often associated with the ESB scores, and Appendix Table A-4 documents the substantial correlations between demographic variables (school ethnic composition and affluence of students) and the various educational outcome indicators. Correlations between mean reading score and percentage of students white ranges from .64 to .97, and the correlation of percentage of students receiving subsidized lunch with mean reading score ranges from -.76 to -.92, for example.

To assess the extent to which the correlations reported in Tables 1 through 12 persist when school ethnic composition and affluence are statistically controlled, second-order partial correlations--controlling for percentage of students white and percentage of students receiving free or reduced lunch--were calculated in those instances where the number of schools was judged to be sufficient (i.e., *n* greater than or equal to 18). These partial correlations,

shown in Tables 13 through 16 for grades 1, 2, 3, and 6 imply that a number of significant correlations remain, although other correlations are reduced to near zero.

Safety, Morale, Student Influence, Pro-Integration Attitude, Personal Security, Classroom Orderliness, Nonauthoritarian Attitude and Parent/Community Involvement are often moderately and significantly correlated with the various salutary educational outcomes net of the statistical controls. Parent/Community Involvement--which had large zero-order correlations with these outcomes for grades 1 and 2--sometimes has partial correlations that are reduced to nonsignificance in these early grades.

Aggregated Residual Gain Scores

An additional way to explore the relation between the climate scales and educational progress is to examine the correlations between the instruments' scores and systematic deviations from expected educational standing given the students' own prior standing on educational tests. Such an exploration is presented in Table 17 for the elementary grades and in Table 18 for the middle and high school grades. These tables use aggregated residual gain scores as the criterion variable.

For the elementary grades, Safety, Morale, Resources, Parent Community Involvement, Personal Security, and Classroom Orderliness

show reasonably consistent patterns of positive, modestly sized, but often statistically significant correlations with aggregated reading and math n scores. Several scales have little consistent pattern of relationship with gain scores: Avoidance of the Use of Grades as a Sanction, Pro-Integration Attitude, Job Satisfaction, Interaction with Students, and Professional Development.

For the middle and secondary grades, where the number of schools ranges from 11 to 18, 17 correlations are statistically significant with 9 expected to be significant at the $p < .05$ level by chance alone. The pattern of correlations is not very consistent, with correlations being positive at some grade levels and negative at others. These ESB scales do not appear to be consistently related to aggregated residual gain scores in this sample of middle and high schools.

Attendance

The correlations of ESB climate scales with student attendance are shown in Table 19 for elementary, middle, and high schools. Safety, Morale, Planning and Action, Race Relations, Parent/Community Involvement, and Student Influence show consistent patterns of positive correlations at each grade level and these correlations are usually significant and often moderate in size (as high as .55). A

few other scales achieve significant correlations only in the pooled sample of all schools: Avoidance of Grades as a Sanction, Interaction with Students, Professional Development, and Nonauthoritarian Attitude. One of these, Interaction with Students, has a sign opposite that expected.

Second-order partial correlations (controlling for percentage of students white and percentage receiving free or reduced lunch) for elementary school grades, and third-order partials (also controlling for school level), are also shown in Table 19. Middle and high school samples are combined to provide a larger *n*, and then grade level is used as an additional statistical control variable in these analyses. Safety and Avoidance of the Use of Grades as a Sanction both remain significantly and moderately (.35 to .55) correlated with attendance for both elementary and secondary schools. Correlations for Morale, Race Relations, Personal Security, and Classroom Orderliness are significant for schools at one level or the other with nontrivial, nonsignificant correlations with the same sign for the other level.

Dropout Rates

Annual incidence rates of school dropout are usually negatively correlated with the ESB scales, as Table 20 shows for middle and high schools. Safety, Morale, and Avoidance of the Use of Grades as a

Sanction show the most consistent pattern of negative correlations, usually significant. Unexpectedly, Interaction with Students has a significant positive correlation with dropout rate in the pooled sample of middle and high schools. Resources, Planning and Action, Job Satisfaction, and Classroom Orderliness are significantly correlated with dropout in at least one test. Partial correlations (controlling for school level, school percent white, and percentage of students receiving subsidized lunch) are negative 13 of 16 times, seven are larger than 0.3, and two are statistically significant (-.66 for Safety and -.69 for Avoidance of the Use of Grades as a Sanction).

Discussion

Despite limitations due to the small number of schools for analyses involving grades 6, 8, and 10; redundancy in the analyses because multiple grades are included in the same schools; and the application of necessarily imperfect statistical controls for student input characteristics; the results provide evidence that the ESB scales are related school academic performance (especially in the elementary grades), to attendance, and to dropout in middle and high schools. These correlations often persist despite controls for student input characteristics.

Implications for Understanding ESB Scores

Evidence about the relation of ESB scores to students' aggregate achievement test performance and orderly progression through the grades is presented for the first time in this report. Several related (moderately intercorrelated) scales show relatively consistent and sizable correlations with salutary educational outcomes. These include Safety, Morale, Planning and Action, Resources, Parent/Community Involvement, Personal Security, and Classroom Orderliness. Other scales had weaker or inconsistent correlations with the same educational outcomes.

Parent/Community Involvement, which has a sizable positive correlation with percentage of students white and a sizable negative correlation with percentage of students receiving subsidized lunch, also has a substantial correlation with Resources. Parent/Community Involvement has large correlations with salutary educational outcomes in the data for grades 1 through 8. This pattern suggests an ecological-level "Matthew effect" in education: "Unto every one that hath shall be given, and he shall have abundance: but from him that hath not shall be taken away even that which he hath" (Matthew 25:29, sexist language in the original).

Although the sample size is large enough to make analyses meaningful only for grades 1, 2, 3, and 6, the Safety, Morale,

Personal Security, Classroom Orderliness, and Nonauthoritarian Attitudes scales generally had significant correlations with a variety of salutary educational outcomes even when school ethnic composition and student affluence were statistically controlled.

In the analyses involving aggregated residual gain scores, where each individual student's own prior test performance is used as a control for student input, several ESB scales are correlated with aggregated gain in the elementary grades. These scales are indicators of a safe and orderly environment (Safety, Classroom Orderliness, and sometimes Personal Security), school organizational health and capacity to cope with problems (Morale, Planning and Action), school resources, and parent and community involvement. The ESB scales do not show interpretable patterns of association with achievement gains for the secondary grades.

The failure of Smooth Administration to display substantial correlations with the school outcomes examined suggests that this measure of faculty-administration cooperation taps an aspect of school climate comparatively unrelated to student academic achievement, attendance, or dropout--an unexpected finding given the important role of the principal in a school. And, the unexpected occasional negative correlations of Interaction with Students with achievement and attendance measures suggests that teachers may often do more tutoring and advising of students in schools where larger proportions of

students are experiencing difficulties.

Causal Order

Nothing in the present results would allow one to determine whether the correlations observed between ESB scales and educational outcomes is causal in either direction. We speculate that a cycle of mutual causation is plausible such that both morale and test scores may go up in an improving school and that both may go down in a deteriorating school, for example. That is, it is not only plausible to assume that in a school characterized by high morale, an orderly environment, and activity directed to planning school improvement students may show greater than expected achievement, but it is also plausible to assume that in a school where students are learning at a greater-than-expected rate and are rarely absent teachers have little reason to experience hopelessness and that it may be easier to maintain order and plan for further improvements. This agnosticism with respect to causal direction applies with equal emphasis to analyses involving the application of statistical controls for ethnicity and affluence and to the analyses of survey scores and aggregate achievement score residual gains.

One rationale for the development of the ESB was to provide a mechanism for assessing characteristics of schools that were important in their own right. That is, the developer assumed that it is

important for schools to have and use indicators of organizational morale, safety, teacher job satisfaction, good race relations, and so forth because these outcomes are desirable in and of themselves. Put another way, even if schools produced high test scores by the usual measures but if people felt unsafe or if job satisfaction were low, educators and the public should experience a sense of concern and should act on these indicators of undesirable organizational outcomes. Form this perspective, it is unnecessary to argue that these organizational features may have causal status in producing such student outcomes as high test scores, orderly progression through the grades, high attendance, and low dropout, although there is nothing in the present results that would rule out such causal status.

Climate and Composition

One perspective on organizational climate is that "the people make the place" (Schneider, 1987). Anderson (1985) suggested that when the focus of interest in inquiry is variance among schools, that school-level means of individual scores are the appropriate measures. This is essentially the view that was taken in the development of the population climate scales of the ESB.

Some personal characteristics of inhabitants have most of their variance within schools (or other environmental units), and others have a substantial fraction of variance among schools (or other

units). For example, individual differences in scholastic achievement appear mostly to be within school leaving little variability among schools once individual difference and social background variables have been controlled (Coleman et al., 1966; Jencks et al., 1972). Other individual differences variables (for example, drug use, G. D. Gottfredson, 1988a) have considerable variance between schools and appear predictable by environmental measures beyond the extent to which they are accounted for by aggregated student characteristics.

In the present investigation, psychosocial climate measures--based on the reports of informants *about the environment*--generally had higher correlations with the criteria examined than did the school population characteristics.

Research on the correlates, causes, and consequences of school climate that examines multilevel models (Burstein, 1980) of the influence of school climate on individual student performance net of student composition would be useful. Because the effective schools movement has suggested a definition of effectiveness that focuses explicitly on effectiveness for disadvantaged students--and implies that effectiveness means closing the gap between more advantaged and less advantaged students (e.g., Pecheone & Shoemaker, 1984)--approaches to multilevel modeling that allow examination of statistical interactions (Raudenbush & Bryk, 1986) may also be helpful.

Implications for Measuring Effective Schools Characteristics

During the period of the 1980's an effective schools movement and associated literature (Edmonds, 1979; Purkey & Smith, 1983; U.S. Department of Education, 1985) has been influential. This literature has been influential in part because it suggested that effective education depends not only on teacher behavior and classroom instruction but also on features of the school as a whole. "Effective schools research" has often identified schools that were believed to produce student achievement beyond that predicted by the social class and academic ability of their students, and it has then sought to identify features of these schools that are associated with their effectiveness. For example, Edmonds (1979) suggested the following list of features: (a) strong administrative leadership, (b) high expectations for student achievement, (c) an orderly atmosphere conducive to learning, (d) an emphasis on basic skills, and (e) frequent monitoring of pupil progress. A number of researchers using a variety of methods have produced their own lists of sensible-sounding features of effective schools (Brookover & Lezotte, 1979; Levine & Stark, 1981; Purkey & Smith, 1983; Weber, 1971; Wynne, 1980), adding such factors as effective use of class time, positive home-school relations, and clear school mission.

The effective schools research suffers from some acknowledged weaknesses, including inadequate controls for student characteristics,

narrow and small samples of students, errors in identifying effective schools, and inadequate attention to whether school features are alterable (Purkey & Smith, 1983; Ralph & Fennessey, 1983; Rowan, Bossert, & Dwyer, 1983). To this critique we would add that there has been inadequate attention to whether the characteristics cited in this literature are *measurable* features of schools with demonstrable statistical links to school outcomes beyond those associations that can be accounted for by student demographic or other input characteristics.

Research in the effective-schools-movement tradition will be strengthened by empirical analyses testing the construct validity of operational indicators of the characteristics discussed in its literature (e.g., Brookover & Lezotte, 1979; Edmonds, 1979). G. D. Gottfredson and Stewart (1989) examined one set of instruments intended to measure effective schools movement variables and found little evidence that it measured the intended constructs. Work to produce dependable, valid tools to assess important measurable features of schools may contribute to making schools more effective.

Postscript: Research on the Usefulness of School Assessment

Survey feedback is one of the pillars of the practice of organization development (Beer, 1980; French & Bell, 1984). Information can often serve as a stimulus for organizational change. The survey instrument examined in this report is intended to serve as a stimulus for school improvement. As such, it is properly seen not

only as a measurement device but also as an intervention tool.

The view of surveys as organizational interventions suggests an additional basis for evaluation of survey instruments and feedback: To what extent do they stimulate problem solving or school improvement? Our experience in using the ESB implies that it opens up discussion and can serve to focus planning on measured needs, and that it sometimes stimulates action on clear problems that have long gone ignored. This observation is supported by interview data reported by Hollifield (1986) for a small number of schools that used the ESB.

Nadler's (1977) theoretical model of the effects of data feedback on organizational behavior implies that perceived relevance and accuracy of data promote productive action. Research explicitly addressing questions about the perceived validity of feedback, the forms of feedback most easily used and acted upon, and the extent to which action results from feedback is needed. Future research evaluating different school assessment instruments that attends to the utility of feedback would make valuable contributions.

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Table 1

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Climate Scales of the Effective School Battery: Grade 1 (N = 42 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score								
	Safety	Morale	Planning & Action	Smooth Admin.	Resources	Race Relations	Prnt/Cmty Involv.	Student Infl.	Avoid. Grd. Sanction
Mean student age	-.38*	-.28	-.36*	-.18	-.30	-.12	-.49***	-.31*	-.18
Percentage never retained	.37*	.30	.32*	.17	.35*	.22	.58***	.33*	.21
Percentage white	.53***	.40**	.28	.19	.42**	.44**	.62***	.04	.26
Percentage free/reduced lunch	-.56***	-.48***	-.37*	-.28	-.49***	-.47**	-.75***	-.18	-.17
Percentage male	.19	.11	-.05	.18	.09	.06	-.10	.06	.08
Mean reading score	.65***	.58***	.44**	.29	.45**	.46**	.67***	.37*	.20
Mean math score	.55***	.50***	.32*	.28	.38*	.32*	.48***	.37*	.18
% meeting reading criterion	.56***	.55***	.42**	.22	.31*	.35*	.51***	.45**	.22
% meeting math criterion	.48***	.54***	.38*	.26	.38*	.28	.44**	.46 **	.20
% meeting math criterion on time	.53***	.55***	.47**	.28	.47**	.32*	.63***	.48***	.28
% meeting reading crit. on time	.53***	.50***	.44**	.22	.38*	.35*	.64***	.47**	.27
Mean reading, on-time students	.63***	.54***	.41**	.26	.45**	.46**	.70***	.32*	.21
Mean math, on-time students	.53***	.51***	.33*	.28	.39**	.34*	.53***	.35*	.18

* $p < .05$
** $p < .01$
*** $p < .001$

Table 2

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Climate Scales of the Effective School Battery: Grade 2 (N = 43 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score								
	Safety	Morale	Planning & Action	Smooth Admin.	Resources	Race Relations	Prnt/Cmty Involv.	Student Infl.	Avoid. Grd. Sanction
Mean student age	-.51***	-.60***	-.52***	-.40**	-.56***	-.50***	-.73***	-.42**	-.32*
Percentage never retained	.50***	.62***	.54***	.45**	.57***	.43**	.72***	.45**	.28
Percentage white	.45**	.37*	.27	.20	.39**	.42**	.63***	-.01	.22
Percentage free/reduced lunch	-.53***	-.46**	-.35*	-.28	-.50***	-.45**	-.75***	-.10	-.20
Percentage male	.00	-.27	-.20	-.25	.03	-.10	.11	-.33*	.07
Mean reading score	.59***	.51***	.35*	.33*	.51***	.46**	.66***	.20	.12
Mean math score	.55***	.43**	.40**	.17	.36*	.32*	.57***	.22	.30
% meeting reading criterion	.54***	.35*	.18	.26	.42**	.42**	.47**	.06	.11
% meeting math criterion	.53***	.41**	.28	.17	.26	.29	.47**	.16	.23
% meeting math criterion on time	.60***	.64***	.52***	.41**	.56***	.45**	.75***	.39**	.26
% meeting reading crit. on time	.59***	.63***	.55***	.44**	.59***	.54***	.77***	.39*	.26
Mean reading, on-time students	.55***	.46**	.30	.30	.46**	.48***	.60***	.15	.06
Mean math, on-time students	.50***	.40**	.35*	.14	.34*	.33*	.57***	.17	.20

* $p < .05$
** $p < .01$
*** $p < .001$

Table 3

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Climate Scales of the Effective School Battery: Grade 3 (N = 41 to 42 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score								
	Safety	Morale	Planning & Action	Smooth Admin.	Resources	Race Relations	Prnt/Cmty Involv.	Student Infl.	Avoid. Grd. Sanction
Mean student age	-.55***	-.37*	-.40**	-.27	-.48***	-.53***	-.62***	-.25	-.20
Percentage never retained	.47**	.44**	.48***	.36*	.52***	.48***	.68***	.32*	.14
Percentage white	.48***	.35*	.25	.18	.42**	.42**	.62***	-.02	.24
Percentage free/reduced lunch	-.58***	-.47**	-.35*	-.26	-.48***	-.46**	-.75***	-.13	-.21
Percentage male	-.23	-.17	-.26	-.14	-.14	-.10	-.14	-.06	-.05
Mean reading score	.61***	.50**	.38*	.19	.40**	.46**	.73***	.26	.19
Mean math score	.68***	.52**	.43**	.18	.40**	.44**	.70***	.34*	.27
% meeting reading criterion	.54***	.34*	.18	.04	.26*	.27	.47**	14	.21
% meeting math criterion	.69***	.52**	.35*	.21	.40*	.39*	.60***	.29	.41**
% meeting math criterion on time	.64***	.60***	.58***	.37*	.54***	.54***	.78***	.40**	.26
% meeting reading crit. on time	.56***	.52**	.54***	.31	.51**	.55***	.74***	.39*	.21
Mean reading, on-time students	.56***	.48**	.36*	.16	.36*	.50**	.69***	.21	.14
Mean math, on-time students	.66***	.52***	.41**	.20	.37*	.53***	.69***	.28	.18

* $p < .05$
** $p < .01$
*** $p < .001$

Table 4

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Climate Scales of the Effective School Battery: Grade 6 (N = 18 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score								
	Safety	Morale	Planning & Action	Smooth Admin.	Resources	Race Relations	Prnt/Cmty Involv.	Student Infl.	Avoid. Grd. Sanction
Mean student age	-.40	-.65**	-.48*	.25	-.03	-.09	-.70***	-.45	-.32
Percentage never retained	.28	.57*	.54*	-.23	.08	.10	.78***	.43	.28
Percentage white	.28	.08	-.28	-.54*	.49*	-.23	.56*	-.29	.05
Percentage free/reduced lunch	-.25	-.11	.24	.49*	-.54*	.15	-.63**	.27	.03
Percentage male	.00	-.46	-.51*	-.33	.43	-.01	-.12	-.51*	-.12
Mean reading score	.58*	.49*	.18	-.36	.32	.10	.78***	.22	.15
Mean math score	.70***	.61**	.19	-.25	.15	.24	.65**	.33	.24
% meeting reading criterion	.61**	.53*	.18	-.26	.04	.13	.58*	.33	.21
% meeting math criterion	.65**	.64**	.25	-.19	-.04	.19	.59**	.45	.27
% meeting math criterion on time	.47	.64**	.50*	-.25	.11	.10	.82***	.47*	.33
% meeting reading crit. on time	.43	.60**	.46	-.26	.16	.11	.82***	.41	.25
Mean reading, on-time students	.48*	.39	.07	-.34	.43	-.04	.71***	.05	.16
Mean math, on-time students	.69***	.56*	.07	-.20	.19	.14	.53*	.22	.30

* $p < .05$
** $p < .01$
*** $p < .001$

Table 5

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Climate Scales of the Effective School Battery: Grade 8 (N = 16 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score								
	Safety	Morale	Planning & Action	Smooth Admin.	Resources	Race Relations	Prnt/Cmty Involv.	Student Infl.	Avoid. Grd. Sanction
Mean student age	-.77***	-.65**	-.51*	.21	-.63**	-.20	-.88***	-.56*	-.40
Percentage never retained	.62**	.50*	.61*	-.22	.62**	.17	.90***	.57*	.35
Percentage white	.41	.25	-.02	-.48	.33	-.41	.55*	.03	.31
Percentage free/reduced lunch	-.71	-.29	-.07	.42	-.48	.31	-.85**	-.09	-.23
Percentage male	-.[illegible]	-.14	.01	-.26	.44	-.31	.20	-.30	.47
Mean reading score	.63**	.50	.50*	-.35	.57*	.13	.89***	.49	.30
Mean math score	.59*	.50*	.48	-.30	.72**	.15	.91***	.50*	.25
% meeting reading criterion	.65**	.51*	.32	-.37	.52*	.11	.83***	.39	.37
% meeting math criterion	.53*	.48	.39	-.32	.74***	.18	.86***	.39	.34
% meeting math criterion on time	.66**	.55*	.58*	-.25	.67**	.18	.93***	.58*	.29
% meeting reading crit. on time	.69**	.55*	.55*	-.26	.63**	.16	.91***	.57*	.36
Mean reading, on-time students	.67**	.50*	.39	-.44	.54*	.09	.82***	.39	.41
Mean math, on-time students	.61*	.51*	.39	-.37	.66**	.06	.86***	.46	.26

* $p < .05$
** $p < .01$
*** $p < .001$

Table 6

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Climate Scales of the Effective School Battery: Grade 10 (N = 11 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score								
	Safety	Morale	Planning & Action	Smooth Admin.	Resources	Race Relations	Prnt/Cmty Involv.	Student Infl.	Avoid. Grd. Sanction
Mean student age	-.63*	-.64*	-.62*	-.63*	-.60*	-.59	-.62*	-.61*	-.62*
Percentage never retained	.53	.54	.51	.54	.50	.49	.50	.50	.51
Percentage white	.03	.05	.05	.04	.05	-.04	.08	.02	.08
Percentage free/reduced lunch	-.03	-.05	-.07	-.04	-.08	.04	-.10	-.03	-.09
Percentage male	-.09	-.10	-.13	-.11	-.18	-.05	-.13	-.09	-.14
Mean reading score	.03	.04	.05	.02	.04	-.02	.08	.02	.07
Mean math score	.02	.03	.04	.02	.02	-.03	.06	.00	.05
% meeting reading criterion	-.01	.00	.01	-.01	.02	-.08	.04	-.02	.04
% meeting math criterion	-.06	-.05	-.04	-.06	-.05	-.12	-.01	-.06	-.01
% meeting math criterion on time	.37	.39	.38	.37	.37	.31	.41	.36	.40
% meeting reading crit. on time	.43	.44	.43	.42	.41	.38	.45	.41	.45
Mean reading, on-time students	.01	.03	.03	.00	.02	-.03	.06	.00	.06
Mean math, on-time students	-.04	-.03	-.02	-.04	-.03	-.09	.01	-.05	.00

* $p < .05$
** $p < .01$
*** $p < .001$

Table 7

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Population Scales of the Effective School Battery: Grade 1 (N = 42 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score						
	Prointe-gration Attitude	Job Satis-faction	Inter-action w/ Stud.	Per-sonal Security	Class-room Order.	Profes-sional Devt.	Nonauthor-itarian Attitudes
Mean student age	-.26	-.27	-.05	-.47**	-.33*	-.30	-.27
Percentage never retained	.13	.34*	.18	.40**	.47**	.21	.29
Percentage white	-.47**	.02	.12	.23	.22	-.05	-.05
Percentage free/reduced lunch	.42**	-.18	-.24	-.28	-.29	.00	-.03
Percentage male	-.07	.21	-.13	.03	.08	.23	.06
Mean reading score	-.01	.24	.24	.60***	.53***	.01	.31*
Mean math score	.04	.27	.21	.50***	.60***	.14	.42**
% meeting reading criterion	.15	.24	.24	.66***	.46**	.00	.30
% meeting math criterion	.11	.42**	.27	.60***	.52***	.11	.41**
% meeting math criterion on time	.12	.48***	.30	.66***	.63***	.22	.43**
% meeting reading crit. on time	.16	.33*	.30	.63***	.54***	.11	.33*
Mean reading, on-time students	-.06	.21	.28	.54***	.51***	.01	.21
Mean math, on-time students	.00	.29	.24	.52***	.61***	.13	.36*

* $p < .05$
** $p < .01$
*** $p < .001$

Table 8

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Population Scales of the Effective School Battery: Grade 2 (N = 42 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score: Prointegration Attitude	Job Satisfaction	Interaction w/ Stud.	Personal Security	Classroom Order.	Professional Devt.	Nonauthoritarian Attitudes
Mean student age	.05	-.33*	-.32*	-.58***	-.38*	-.25	-.12
Percentage never retained	.04	.44**	.30	.63***	.46**	.25	.26
Percentage white	-.50***	.00	.15	.15	.19	-.08	-.10
Percentage free/reduced lunch	.47**	-.14	-.21	-.26	-.28	.03	.03
Percentage male	-.30	-.30	.10	-.30	-.16	.14	-.23
Mean reading score	-.26	.24	.11	.42**	.47**	-.03	.27
Mean math score	-.17	.16	.15	.41**	.45**	-.01	.35*
% meeting reading criterion	-.28	.05	-.06	.28	.31*	-.15	.17
% meeting math criterion	-.18	.12	-.05	.40**	.36*	-.13	.30
% meeting math criterion on time	-.07	.36*	.23	.62***	.46**	.13	.29
% meeting reading crit. on time	-.10	.36*	.25	.60***	.46**	.13	.27
Mean reading, on-time students	-.33*	.16	.11	.33*	.37*	-.12	.23
Mean math, on-time students	-.25	.11	.18	.33*	.36*	-.08	.26

* $p < .05$
** $p < .01$
*** $p < .001$

Table 9

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Population Scales of the Effective School Battery: Grade 3 (N = 41 to 42 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score						
	Prointe-gration Attitude	Job Satis-faction	Inter-action w/ Stud.	Per-sonal Security	Class-room Order.	Profes-sional Devt.	Nonauthor-itarian Attitudes
Mean student age	.04	-.18	-.11	-.36*	-.32*	-.17	-.13
Percentage never retained	.00	.28	.13	.38*	31*	.22	.19
Percentage white	-.49***	.00	.09	.15	.18	-.10	-.12
Percentage free/reduced lunch	.46**	-.12	-.27	-.28	-.30	.01	.02
Percentage male	.19	-.12	.19	-.21	-.24	-.10	-.25
Mean reading score	-.22	.12	.23	.53***	.40**	.05	.20
Mean math score	-.04	.19	.26	.59***	.54***	.12	.30
% meeting reading criterion	-.27	.08	.20	.39*	.34*	.05	.15
% meeting math criterion	-.20	.27	.13	.56***	.60***	.21	.31*
% meeting math criterion on time	-.08	.32*	.11	.57***	.46**	.26	.32*
% meeting reading crit. on time	-.03	.31*	.16	.51**	.38*	.20	.27
Mean reading, on-time students	-.24	.10	.18	.52***	.40**	.00	.17
Mean math, on-time students	-.06	.12	.15	.58***	.46**	.04	.27

* $p < .05$
** $p < .01$
*** $p < .001$

Table 10

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Population Scales of the Effective School Battery: Grade 6 (N = 18 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score						
	Prointe-gration Attitude	Job Satis-faction	Inter-action w/ Stud.	Per-sonal Security	Class-room Order.	Profes-sional Devt.	Nonauthor-itarian Attitudes
Mean student age	-.06	-.57*	.25	-.58*	-.33	-.01	-.39
Percentage never retained	.09	.59**	-.11	.59**	.37	-.02	.40
Percentage white	-.48*	-.01	.37	-.04	.51*	-.35	-.09
Percentage free/reduced lunch	.47*	.01	-.46	-.03	-.57*	.28	.10
Percentage male	-.39	-.36	.34	-.15	.22	-.33	-.39
Mean reading score	-.03	.35	.04	.46	.73***	-.12	.40
Mean math score	.07	.31	-.29	.59**	.68**	-.07	.52*
% meeting reading criterion	-.03	.24	-.18	.46	.56*	-.03	.47*
% meeting math criterion	.03	.29	-.37	.64**	.54*	.00	.59**
% meeting math criterion on time	.06	.56*	-.16	.64**	.51*	-.04	.51*
% meeting reading crit. on time	.05	.55*	-.07	.58*	.53*	-.04	.43
Mean reading, on-time students	-.18	.29	.25	.26	.73***	-.16	.17
Mean math, on-time students	-.01	.22	-.25	.44	.69**	-.12	.39

* $p < .05$
** $p < .01$
*** $p < .001$

Table 11

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Population Scales of the Effective School Battery: Grade 8 (N = 16 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score						
	Prointe-gration Attitude	Job Satis-faction	Inter-action w/ Stud.	Per-sonal Security	Class-room Order.	Profes-sional Devt.	Nonauthor-itarian Attitudes
Mean student age	.05	-.73***	.15	-.65**	-.61*	-.13	-.55*
Percentage never retained	.09	.72**	-.20	.64**	.47	.09	.62*
Percentage white	-.39	.10	-.01	.19	.22	-.26	.27
Percentage free/reduced lunch	.28	-.17	.02	-.25	-.22	.16	-.31
Percentage male	.02	.01	-.17	.05	-.32	.17	-.13
Mean reading score	.12	.56*	-.16	.63**	.54*	-.07	.68**
Mean math score	.15	.61*	-.04	.64**	.51*	.07	.62**
% meeting reading criterion	-.11	.46	.10	.58*	.47	-.03	.54*
% meeting math criterion	.11	.56*	-.06	.57*	.41	.12	.47
% meeting math criterion on time	.11	.70**	-.14	.64**	.54*	.07	.63**
% meeting reading crit. on time	.00	.70**	-.15	.63**	.53*	.07	.61*
Mean reading, on-time students	.02	.47	-.18	.57*	.55*	-.11	.53*
Mean math, on-time students	.07	.53*	.03	.55*	.53*	-.01	.57*

* $p < .05$
** $p < .01$
*** $p < .001$

Table 12

Correlations Between Student Characteristics or Educational Outcomes and the Teacher Population Scales of the Effective School Battery: Grade 10 (N = 11 Schools)

Schools' Student Population Characteristics or Educational Outcomes	Effective School Battery Score						
	Prointe-gration Attitude	Job Satis-faction	Inter-action w/ Stud.	Per-sonal Security	Class-room Order.	Profes-sional Devt.	Nonauthor-itarian Attitudes
Mean student age	-.58	-.61*	-.62*	-.63*	-.62*	-.58	-.62*
Percentage never retained	.47	.51	.50	.51	.51	.48	.51
Percentage white	.02	.05	.07	.07	.04	.00	.04
Percentage free/reduced lunch	-.03	-.06	-.09	-.08	-.04	-.02	-.06
Percentage male	-.13	-.14	-.14	-.13	-.11	-.09	-.11
Mean reading score	.01	.05	.06	.06	.03	.01	.04
Mean math score	.00	.03	.05	.06	.02	-.01	.03
% meeting reading criterion	-.03	.01	.03	.03	-.01	-.04	.00
% meeting math criterion	-.06	-.04	-.01	-.01	-.05	-.08	-.04
% meeting math criterion on time	.34	.38	.40	.40	.37	.34	.38
% meeting reading crit. on time	.39	.43	.44	.45	.42	.39	.43
Mean reading, on-time students	.01	.03	.05	.05	.02	.00	.03
Mean math, on-time students	-.04	-.02	.00	.01	-.03	-.06	-.02

* $p < .05$
** $p < .01$
*** $p < .001$

Table 13

Partial Correlations of Effective School Battery Scales with Educational Outcomes Controlling for Percentage Black and Percentage of Students Receiving Free or Reduced Lunch: Grade 1 (N = 42 Schools)

ESB Scale	Mean score: reading	Mean score: math	% meeting criterion: reading	% meeting criterion: math	% meeting criterion on time: math	% meeting criterion on time: reading	Mean score, on-time students: reading	Mean score, on-time students: math
Safety	.44**	.37*	.36*	.30	.32*	.28	.39**	.33*
Morale	.37*	.31*	.38*	.40**	.36*	.27	.27	.32*
Planning & Action	.23	.13	.26	.23	.30	.25	.16	.12
Smooth Administration	.09	.13	.06	.13	.11	.01	02	.12
Resources	.13	.16	.05	.19	.25	.09	.11	.15
Race Relations	.19	.10	.12	.07	.06	.08	.16	.11
Parent/Cmty. Involvement	.20	.11	.14	.12	.32*	.28	.22	.15
Student Influence	.33*	.29	.42**	.42**	.44**	.43**	.26	.26
Avoid. Grades as Sanction	.19	.18	.19	.18	.32*	.30	.19	.17
Pro-Integration Attitude	.51**	.31*	.51**	.38*	.48**	.59**	.49**	.29
Job Satisfaction	.09	.15	.14	.37*	.43**	.21	.03	.17
Interaction With Students	.03	.06	.10	.16	.14	.13	.10	.08
Personal Security	.63**	.44**	.64**	.56**	.65**	.61**	.55**	.46**
Classroom Orderliness	.49**	.54**	.37*	.45**	.60**	.47**	.4?**	.57**
Professional Development	-.01	.14	-.01	.11	.26	.13	.00	.14
Nonauthoritarian Attitude	.43**	.46**	.34*	.44**	.49**	.38*	.29	.40**

* $p < .05$
** $p < .01$

Table 14

Partial Correlations of Effective School Battery Scales with Educational Outcomes Controlling for Percentage Black and Percentage of Students Receiving Free or Reduced Lunch: Grade 2 (N = 42 Schools)

ESB Scale	Mean score: reading	Mean score: math	% meeting criterion: reading	% meeting criterion: math	% meeting criterion on time: math	Mean score, on-time students: reading	Mean score, on-time students: math
Safety	.31*	.30	.34*	.31*	.34*	.30	.26	.20
Morale	.25	.18	.11	.19	.47**	.45**	.18	.12
Planning & Action	.11	.25	-.03	.10	.38*	.42**	.05	.17
Smooth Administration	.18	-.02	.14	.01	.28	.33	.15	-.08
Resources	21	.04	.19	-.07	.27	.33	.12	-.02
Race Relations	.17	.00	.20	.01	.21	.35*	.22	.00
Parent/Cmty. Involvement	.11	.12	.02	.03	.38*	.40**	.00	.07
Student Influence	.18	.24	.02	.13	.39**	.41**	.12	.16
Avoid. Grades as Sanction	-.07	.23	-.04	.14	.24	.23	-.17	.07
Pro-Integration Attitude	.22	.27	.04	.17	.40**	.38*	.09	.18
Job Satisfaction with Students	.21	.12	-.01	.07	.28	.29	.10	.03
Personal Security	.37*	.37*	.20	.33*	.61**	.59**	.23	.24
Classroom Orderliness	.43**	.39**	.21	.26	.35*	.36*	.27	.26
Professional Development	-.03	.02	-.16	-.14	.18	.19	-.16	-.08
Nonauthoritarian Attitude	.50**	.55**	.28	.42**	.41**	.39**	.43**	.44**

* $p < .05$
** $p < .01$

Table 15

Partial Correlations of Effective School Battery Scales with Educational Outcomes Controlling for Percentage Black and Percentage of Students Receiving Free or Reduced Lunch: Grade 3 (N = 41 Schools)

ESB Scale	Mean score: reading	Mean score: math	% meeting criterion: reading	% meeting criterion: math	% meeting criterion on time: math	% meeting criterion on time: reading	Mean score, on-time students: reading	Mean score, on-time students: math
Safety	.27	.46**	.28	.52**	.36*	.21	.20	.44**
Morale	.20	.25	.04	.32*	.39*	.26	.17	.26
Planning & Action	.14	.23	-.08	.17	.48**	.41**	.10	.20
Smooth Administration	-.07	-.05	-.19	.06	.25	.15	-.11	-.02
Resources	.01	.10	-.06	.15	.29	.26	-.04	.05
Race Relations	.18	.21	.00	.17	.35*	.37*	.28	.36*
Parent/Cmty. Involvement	.27	.33*	-.01	.26	.48**	.38*	.22	.32*
Student Influence	.18	.24	.00	.27	.42**	.38*	.10	.15
Avoid. Grades Sanction	.07	.23	.14	.38*	.18	.11	-.01	.10
Pro-Integration Attitude	.23	.38*	-.04	.09	.41**	.47**	.14	.33*
Job Satisfaction	-.04	.06	-.05	.23	.30	.27	-.06	-.05
Interaction with Students	-.12	-.06	-.05	-.10	-.28	-.20	-.17	-.23
Personal Security	.49**	.52**	.24	.51**	.54**	.42**	.47**	.52**
Classroom Orderliness	.24	.43**	.18	.55**	.33*	.20	.24	.30
Professional Development	.05	.10	.02	.26	.36*	.26	-.04	-.01
Nonauthoritarian Attitude	.31	.36*	.15	.39*	.46**	.38*	.24	.32

* $p < .05$
** $p < .01$

Table 16

Partial Correlations of Effective School Battery Scales with Educational Outcomes Controlling for Percentage Black and Percentage of Students Receiving Free or Reduced Lunch: Grade 6 (N = 18 Schools)

ESB Scale	Mean score: reading	Mean score: math	% meeting criterion: reading	% meeting criterion: math	% meeting criterion on time: math	% meeting criterion on time: reading	Mean score, on-time students: reading	Mean score, on-time students: math
Safety	.62**	.69**	.58*	.62**	.42	.39	.55*	.71**
Morale	.66**	.69**	.59*	.68**	.69**	.66**	.67**	.71**
Planning & Action	.63**	.44	.42	.43	.75**	.74**	.68**	.38
Smooth Administration	.08	.08	.06	.07	-.01	-.02	.32	.27
Resources	-.16	-.21	-.40	-.38	-.25	-.23	-.07	-.19
Race Relations	.41	.48	.30	.33	.19	.20	.30	.46
Parent/Cmty. Involvement	.64**	.51*	.36	.46	.74**	.72**	.52*	.35
Student Influence	.72**	.64**	.64**	.68**	.75**	.72**	.68**	.58*
Avoid. Grades as Sanction	.26	.28	.27	.32	.45	.38	.33	.35
Pro-Integration Attitude	.62**	.49*	.35	.33	.40	.42	.61**	.48
Job Satisfaction	.57*	.39	.30	.33	.68**	.68**	.66**	.31
Interaction with Students	-.55*	-.73**	-.63**	-.75**	-.59*	-.52*	-.30	-.73**
Personal Security	.74**	.76**	.57*	.74**	.73**	.67**	.58*	.67**
Classroom Orderliness	.58*	.58*	.35	.47	.30	.29	.65**	.64**
Professional Development	.21	.17	.20	.18	.11	.12	.29	.19
Nonauthoritarian Attitude	.75**	.70**	.66**	.73**	.67**	.60**	.56*	.60**

* $p < .05$
** $p < .01$

Table 17

Correlations of Effective School Battery Scales with Aggregated Residual Gain Scores: Elementary Grades

ESB Scale	Reading gain scores for grade: 1	2	3	4	5	Math gain scores for grade: 1	2	3	4	5
Safety	54***	31*	35*	26	21	24	34*	48***	06	34*
Morale	48***	43**	17	27	16	21	28	29	01	28
Planning & Action	32*	38*	11	15	05	04	41**	20	-06	15
Smooth Administration	19	30	06	33*	17	08	08	12	19	15
Resources	36*	45**	12	25	22	12	23	16	01	24
Race Relations	37*	24	19	30	35*	03	32*	13	12	22
Parent/Cmty. Involvement	47**	45**	35*	39*	32*	06	35*	37*	03	20
Student Influence	35*	28	00	13	03	15	26	25	19	19
Avoid. Grades as Sanction	11	08	03	-01	07	05	37*	15	-13	-07
Pro-Integration Attitude	18	-21	-14	-53***	-15	20	01	15	-06	32*
Job Satisfaction	23	37*	-18	12	05	12	23	05	00	25
Interaction with Students	24	14	-24	-10	-04	07	15	-01	-09	-12
Personal Security	52***	25	16	02	23	26	29	39*	-05	50***
Classroom Orderliness	46**	24	-01	13	22	38*	38*	33*	-05	46**
Professional Development	-04	11	00	04	03	05	07	25	-02	20
Nonauthoritarian Attitude	30	30	03	02	15	25	41**	20	06	46**
(N)	(42)	(42)	(41)	(42)	(42)	(42)	(42)	(41)	(42)	(42)

Note. Decimals omitted.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 18

Correlations of Effective School Battery Scales with Aggregated Residual Gain Scores: Middle and Secondary Grades

ESB Scale	Reading gain scores for grade: 6	7	8	9	10	Math gain scores for grade: 6	7	8	9	10
Safety	01	37	37	-40	-72*	17	10	11	58	-68*
Morale	48*	28	45	-08	-62*	48*	21	23	53	-19
Planning & Action	43	39	17	-21	-27	26	08	16	23	-02
Smooth Administration	-15	-33	07	-21	-52	09	-13	-02	46	-07
Resources	-53*	45	20	-28	23	-68**	38	51*	-10	13
Race Relations	04	-08	72**	-55	-45	17	03	58*	21	-37
Parent/Cmty. Involvement	09	77***	12	14	08	-23	35	28	-14	06
Student Influence	43	29	27	-40	-25	45	-04	25	36	-20
Avoid. Grades as Sanction	43	14	19	72*	00	43	-20	02	13	26
Pro-Integration Attitude	16	18	30	-55	-32	28	48	35	03	-35
Job Satis-faction	34	32	37	-16	-59	12	19	44	38	52
Interaction with Students	-26	-12	-09	-06	-02	-67**	-30	07	05	27
Personal Security	39	46	42	01	-68*	40	30	36	13	-02
Classroom Orderliness	-21	45	27	-28	-75**	-24	25	01	41	-62*
Professional Development	06	-21	36	-51	-11	14	-05	48	02	-48
Nonauthoritarian Attitude	19	71**	-02	-18	-24	32	22	-01	08	-08
(N)	(18)	(16)	(16)	(11)	(11)	(18)	(16)	(16)	(11)	(11)

Note. Decimals omitted.

* $p < .05$ ** $p < .01$ ** $p < .001$

Table 19

Correlations of Effective School Battery Scales with Student Attendance: Elementary, Middle, and High Schools

ESB Scale	Zero order correlations				Partial correlations	
	Elementary (N = 42)	Middle (N = 15)	High (N = 11)	Total (N = 68)	Elementary (N = 42)	Middle & High (N = 26)
Safety	.55***	.55*	.29	.53***	.55***	.43*
Morale	.51***	.48	.34	.42***	.44**	.41
Planning & Action	.36*	.32	.43	.43***	.28	.30
Smooth Administration	.29	.08	-.13	.20	.17	.00
Resources	.24	.40	-.34	.12	.14	.00
Race Relations	.39*	.24	.25	.32**	.36*	.24
Parent/Cmty. Involvement	.40**	.28	.55	.40***	.27	.26
Student Influence	.38*	.36	.40	.43***	.27	.33
Avoid. Grades as Sanction	.26	.32	.51	.45***	.35*	.49*
Pro-Integration Attitude	-.08	.21	.18	.11	.00	.20
Job Satis-faction	.10	.45	.33	.20	-.08	.36
Interaction with Students	.00	-.22	.16	-.42***	-.19	-.12
Personal Security	.51***	.46	.04	.44***	.47**	.27
Classroom Orderliness	.29	.63*	.42	.08	.22	.51*
Professional Development	.25	.24	.47	.38***	.20	.37
Nonauthoritarian Attitude	.38	.14	.34	.36**	.42**	.10

[a]Controlling for percentage white and free and reduced lunch for elementary schools and also for level for middle and high schools.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 20

Correlations of Effective School Battery Teacher Psychosocial Climate Scales with Dropout Rate: Middle and High Schools

ESB Scale	Zero order correlations			Partial r
	Middle (N = 15)	High (N = 11)	Total (N = 26)	Total (N = 26)
Safety	-.78***	-.20	-.61***	-.66*
Morale	-.64**	-.44	-.61***	-.48
Planning and Action	-.18	-.16	-.42*	-.13
Smooth Administration	.09	-.35	-.38	-.16
Resources	-.45	.03	-.53**	-.26
Race Relations	-.04	.06	-.06	-.19
Parent/Community Involvement	-.50	.17	-.38	-.19
Student Influence	-.32	.09	-.24	-.18
Avoidance of Grades as Sanction	-.57*	-.50	-.57**	-.69**
Pro-Integration Attitude	.25	.35	.02	.14
Job Satisfaction	-.46	-.14	-.47*	-.37
Interaction with Students	.08	-.23	.48*	.14
Personal Security	-.44	-.37	-.31	-.33
Classroom Orderliness	-.66**	-.05	-.13	-.51
Professional Development	-.23	.46	-.29	-.44
Nonauthoritarian Attitude	-.18	-.26	-.30	.13

Note. Dropout rates are annual incidence rates for grades 7 and 8 for middle schools and for grades 9 - 12 for high schools.

[a]Controlling for percentage white, percentage free or reduced lunch, and school level.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table A-1

Correlations Among the Teacher Psychosocial Climate Scales of the Effective School Battery

Psychosocial Climate Scale	Safety	Morale	Planning & Action	Smooth Admin.	Resources	Race Relations	Prnt/Cmty Involv.	Student Infl.	Avoid. Grd. Sanction
Safety	[.94]	.69	.44	.28	.50	.41	.61	.46	.33
Morale	.63	[.92]	.66	.71	.63	.48	.69	.60	.27
Planning and Action	.40	.73	[.88]	.54	.34	.32	.58	.61	.34
Smooth Administration	.47	.80	.68	[.92]	.49	.23	.39	.48	.12
Resources	.46	.34	.36	.32	[.84]	.34	.56	.17	.08
Race Relations	.39	.42	.30	.28	.06	[.76]	.42	.18	-.09
Parent/Community Involvement	.35	.64	.49	.55	.26	.28	[.80]	.44	.24
Student Influence	.26	.43	.52	.38	.22	.19	.27	[.83]	.28
Avoidance of Grades as Sanction	.16	.26	.20	.21	.06	.25	.19	.23	[.74]

Note. Correlations above the diagonal are from the present sample of Charleston elementary middle, and high schools (N = 68). Correlations below the diagonal are median correlations for two samples of schools with grades 6 to 12 reported in the *User's Manual for the Effective School Battery* (N's = 43 and 47 schools). Diagonal elements are median homogeneity coefficients (alpha) reported in the *Manual* (Gottfredson, 1984, p. 47).

Table A-2

Correlations Among the Teacher Population Characteristics from the Effective School Battery when Aggregated to the School Level

Teacher Population Characteristic	Pro-integration Attitude	Job Satisfaction	Interaction w/ students	Personal Security	Classroom Order.	Professional Devt.	Nonauthoritarian Attitude
Pro-Integration Attitude	---	.15	-.04	.23	.15	.10	.28
Job Satisfaction	.04	---	.09	.45	.56	.45	.44
Interaction with Students	.19	.68	---	-.17	.39	-.06	-.26
Personal Security	-.10	.33	.30	---	.49	.26	.53
Classroom Orderliness	.08	.42	.35	.46	---	.16	.32
Professional Development	.13	.43	.92	.40	.46	---	.25
Nonauthoritarian Attitude	.07	.17	.49	.31	.32	.45	---

Note. Correlations above the diagonal are for the present sample elementary, middle, and high schools (N = 68). Correlations below the diagonal are for the 52 schools with grades 6 to 12 reported in the *Manual* (Cottfredson, 1984, p. 55). Notice that homogeneity coefficients are *not* reported for these scores because they are *means* of scales scored at the individual level and aggregated to produce a school-level score. Precision depends mostly on the number of persons responding per school and is indexed by the standard error of the mean for each school.

Table A-3

Correlations Between the Teacher Population Characteristics and School Psychosocial Climate According to Teacher Reports from the Effective School Battery

School Psychosocial Climate Scale	Teacher Population Characteristic						
	Prointe-gration Attitude	Job Satis-faction	Interac-tion w/ students	Per-sonal Security	Class-room Order.	Profes-sional Devt.	Nonauth-oritarian Attitude
Safety	-.03	.33	-.21	.66	.31	.27	.37
Morale	-.10	.63	-.02	.62	.41	.43	.41
Planning and Action	.09	.46	-.14	.39	.10	.45	.49
Smooth Administration	-.02	.51	-.03	.28	.18	.46	.2/
Resources	-.08	.49	.22	.31	.34	.24	.09
Race Relations	-.07	.15	-.07	.40	.24	.04	.17
Parent/Community Involvement	-.17	.46	-.01	.55	29	.38	.25
Student Influence	.21	.50	-.11	.49	.17	.45	.61
Avoidance of Grades as Sanction	-.09	.12	-.14	.21	.07	.22	.21

Note. N = 68 Charleston County schools. Correlations of .29 are significantly different from 0 at the $p < .01$ level. Corresponding correlations for 45 schools are shown in the *Manual* for the ESB (Gottfredson, 1984, p. 51).

Table A-4

School-Level Correlations Between Student Demographic Characteristics and Aggregate Educational Outcomes (Grades 1, 2, 3, 6, 8, and 10)

Demographic characteristics	Educational outcomes: Mean		% Meeting		% Meeting Crit. On-Time		Mean for On-Level Students	
	Reading	Math	Reading Crit.	Math Crit.	Math	Reading	Reading	Math
Grade 1 (N = 42 schools)								
Mean age	-.43	-.30	-.35	-.26	-.66	-.69	-.45	-.34
% never retained	.52	.40	.37	.[illegible]	.75	.77	.56	.45
% white	.64	.41	.48	.3[illegible]	.47	.51	.69	.45
% free/reduced lunch	-.76	-.52	-.56	-.47	-.59	-.64	-.80	-.57
% male	-.05	.11	-.06	.15	.00	-.15	-.06	.07
Grade 2 (N = 42 schools)								
Mean age	-.55	-.54	-.31	-.38	-.[illegible]8	-.90	-.45	-.49
% never retained	.60	.55	.29	.38	.92	.93	.48	.51
% white	.75	.67	.63	.58	.59	.62	.76	.70
% free/reuced lunch	-.81	-.70	-.64	-.62	-.72	-.74	-.80	-.73
% male	.01	-.04	-.05	-.11	-.12	-.11	-.01	-.01
Grade 3 (N = 41 schools)								
Mean age	-.55	-.54	-.21	-.40	-.88	-.89	-.50	-.54
% never retained	.56	.51	.17	.37	.92	.94	.52	.52
% white	.47	.52	.47	.52	.62	.60	.64	.52
% free/reduced lunch	-.60	-.68	-.59	-.60	-.74	-.73	-.76	-.67
% male	-.29	-.14	-.38	-.28	-.23	-.17	-.22	-.12
Grade 6 (N = 18 schools)								
Mean age	-.70	-.68	-.[illegible]6	-.70	-.95	-.95	-.58	-.56
% never retained	.68	.61	.57	.61	.95	.95	.58	.46
% white	.76	.58	.57	.46	.48	.50	.88	.67
% free/reduced lunch	-.77	-.56	-.59	-.46	-.53	-.57	-.88	-.61
% male	-.16	-.32	-.42	-.45	-.34	-.33	.00	-.23
Grade 8 (N = 16 schools)								
Mean age	-.89	-.85	-.84	-.80	-.95	-.98	-.87	-.81
% never retained	.90	.88	.81	.83	.98	.98	.83	.80
% white	.66	.64	.74	.62	.58	.60	.71	.75
% free/reduced lunch	-.76	-.76	-.82	-.75	-.70	-.69	-.78	-.84
% male	.33	.47	.36	.57	.36	.32	.34	.44
Grade 10 (N = 11 schools)								
Mean age	-.57	-.58	-.48	-.46	-.85	-.89	-.48	-.46
% never retained	.36	.35	.30	.19	.66	.78	.24	.20
% white	.97	.97	.98	.95	.88	.75	.95	.95
% free/reduced lunch	-.92	-.91	-.97	-.91	-.79	-.64	-.92	-.92
% male	-.0[illegible]	-.07	-.29	-.10	-.02	-.02	-.10	-.12

Figure 1

ESB School Psychosocial Climate Scales--Teacher Reports

Scale	Meaning
Safety	Indicates how safe teachers report the school environment to be. A high score means that teachers tend to report most places in the school to be safe, and a low score means that teachers report many places in the school to be unsafe.
Morale	Indicates the degree of enthusiasm of a school's faculty and faculty confidence in the school. A high score means that teachers are likely to be enthusiastic and to participate in the development of new programs. A low score suggests that many faculty share a sense of resignation about the school and little confidence that much can be done about it.
Planning and Action	Indicates teacher reports of the degree to which the school takes an experimenting or innovative approach to planning school programs.
Smooth Administration	Indicates how teachers perceive the school administration. High scores imply that teachers perceive that they get the help they need to do their jobs when they need it.
Resources	Indicates whether teachers report adequate instructional supplies and other resources or whether they report difficulty in obtaining needed teaching supplies.
Race Relations	Indicates (in integrated schools) how well different ethnic groups get along. In schools with students and faculty of only one ethnic group, this scale should be disregarded.
Parent/Community Involvement	Indicates the degree to which the school uses community resources in its programs.
Student Influence	Indicates teacher perceptions of the extent to which students participate in school decisions.
Avoidance of Use of Grades as a Sanction	Indicates the extent to which teachers avoid lowering grades in response to student misconduct--a generally poor practice.

Figure 2

ESB Teacher Population Characteristics

Scale	Meaning
Pro-Integration Attitude	Indicates average teacher attitude toward integrated education. A high score suggests that teachers view integrated education in a positive way; a low score suggests that the average teacher may be somewhat insensitive to issues of racial equity.
Job Satisfaction	Indicates how the average teacher feels about his or her job. A high score implies that teachers typically like their jobs in the school; a low score indicates that teachers typically dislike their jobs.
Interaction with Students	Indicates how much positive social interaction the average teacher reports having with students. A high score implies that many teachers report friendly interaction with students.
Personal Security	Indicates the average teacher's experience of personal victimization. In a low-scoring school, relatively many teachers report receiving obscene remarks or gestures, threats, thefts, or even attacks. A high score implies teachers rarely experience indignities or victimization in the school.
Classroom Orderliness	Indicates how orderly the average teacher's classroom is. A high score implies classrooms are typically orderly; a low score implies that disruption interferes with teaching in many classes.
Professional Development	Indicates how much exposure to continuing education the average teacher in the school has had in the past year.
Nonauthoritarian Attitude	Indicates the average teacher's attitude about student-teacher authority relations. A low score implies many teachers have a punitive, moralistic attitude about student misbehavior. A high score implies many teachers have a more flexible attitude about coping with student misconduct.